



1. Dr. Didsbury	G.407
2. Mr. Morley Parry	A.429
3. Mr. Perry	A.405

II



GLANFORD BRIGG RURAL DISTRICT
COUNCIL


ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
1966

GLANFORD BRIGG R.D.C.
BARTON-ON-HUMBER U.D.C. BRIGG U.D.C.

*With the Compliments
of
The Medical Officer of Health*

PUBLIC HEALTH DEPT.,
50, HOLYDYKE,
BARTON-ON-HUMBER.

Tel. 3154.



Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b29256483>

MEDICAL OFFICER OF HEALTH

J. S. Robertson, M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H., D.I.H.

Office: 50, Holydyke, Barton-on-Humber. Telephone: Barton-on-Humber 3154

Clerks: Mrs. M. H. Akester, Mrs. V. A. Foster.

CHIEF PUBLIC HEALTH INSPECTOR

T. Kerr

ASSISTANT SENIOR PUBLIC HEALTH INSPECTOR

K. C. Beetham

DISTRICT PUBLIC HEALTH INSPECTORS

R. A. Stewart

J. A. Walker

D. R. Foster

J. H. Frear (Commenced March 1966)

Offices: Rural Council Offices, Bigby Street, Brigg.

Telephone: Brigg 2041

Chief Administrative Clerk: P. J. Chapman.

Clerks: Miss A. White, Mrs. M. Robinson, Miss J. Brown.

PUBLIC HEALTH COMMITTEE

Chairman:	-	Councillor G. Hughes. J.P.
Vice Chairman	-	Councillor J. Binns

Councillors

Miss A. J. H. Barton
A. Broddle
Mrs. M. Cattell
P. Chapman
T. B. Clayphan
F. D. Cook
R. N. Coulthurst
M. J. Craigs
H. A. Crawford
J. F. Day
Mrs. S. Dickinson
Rev. M. J. Diggle
L. F. R. Fell
Rev. S. W. Floyd
R. J. Harrison
H. J. Grundy

Councillors

F. T. Hepworth
Mrs. J. E. Humphreys
D. W. Johnson
G. R. Lea
K. H. Markham
Mrs. D. G. McIver
C. L. Ogg
F. Proctor
F. J. Spencer
R. E. Stamp
A. T. G. Turnbull
A. Walker
J. Wells
A. T. Wood
P. A. F. Wood
C. J. Wright.

I N D E X

					<u>Commentary</u>	<u>Tables</u>
					page	page
Atmospheric Pollution	...	...	...	...	2, 16-17	33-35, 44
Caravan Sites	...	...	...	...	4	39
Disinfection and Disinfestation	...	...	...	...		43
Factories Act, 1961	...	...	...	...		45
Food Hygiene	...	...	...	...		36, 39-41
General Description of the District		...	...	...	18	
Housing and Slum Clearance		...	...	...	9-12	37-39
Immunisation and Vaccination		...	...	...		23-24
Industrial Development and Health		...	...	...	1-3	
Meat Inspection	...	...	...	...		41
Notifiable Diseases	...	...	...	...	14-15	22
Nuisances	...	...	...	...		43
Offensive Trades	...	...	...	...		43
Offices, Shops and Railway Premises Act, 1963		...	...	...		43
Port Health	...	...	...	...	15	44
Refuse Collection	...	...	...	...	12-14	43
Rodent Control	...	...	...	...		44
Sewering and Sewage Disposal		...	...	...	16	42
Social Circumstances and Health		...	...	...	5-9	
Vital Statistics	...	...	...	...	1, 3-5	19-21
Water Supplies	...	...	...	...	15-16, 25	25-32

50 Holydyke,

Barton-on-Humber.

July 1967

Mr. Chairman, Ladies and Gentlemen,

The accelerating rate of industrial and economic expansion of the south bank of the Humber and consequent population increase by migration is already starting to change the character of our Rural District, and may be in part responsible for the pattern of our vital statistics. It is the young and unestablished adult who tends to migrate to a different area to work in new industry. Consequently the proportion of people in our area who are of child bearing age is probably already much higher than in most rural areas, and the very high birth rates which we have been experiencing for the past few years are almost certainly due to this rather than to any drastic change in fertility. Similarly, the low death rates may be caused by the same factor, for few people die in early adult life. The correcting factors supplied by the Registrar General are intended to correct for such variations in population structure, but there is bound to be delay between change in population and adequate adjustment of such correcting factors.

The extremely favourable vital statistics which we experienced during 1966 however cannot be entirely attributable to this change in age structure of the population. The statistics relating to infant mortality, perinatal mortality and still-birth are based on numbers of births and not on population. Consequently they are not influenced by the relative numbers of old and young people in this area. It is possible however that the improvement in these rates may be related to the prosperity resulting from the improved availability of adequately paid employment. Just as poverty causes malnutrition and ill health so can affluence improve health.

Regrettably it does not always do so, and there are dangers when as a result of affluence people eat or drink to excess, or cease to take sufficient exercise as a result of buying a car. However, in an area such

as ours where a high proportion of the population has hitherto lived on relatively small incomes the effects of increased earning ability are entirely beneficial.

Industrialisation will however soon begin to affect us in other ways, and if we are to make the most of our opportunities we must make sure that the less welcome effects are minimised. Among the disadvantages of industrialisation are the effects upon the countryside of industrial buildings, stockpiles of materials, and industrial wastes, the increase in pollution of our air by fumes, dust, and smell, disturbance of the peace of the countryside by noise, and finally the effects upon our means of communication and upon those residing near main roads and railway lines of the greatly increased traffic.

We can attempt to minimise air pollution, but can by no means eliminate it, and as the amount of industrial pollution rises, the need to control and reduce pollution from other sources such as domestic fires, bonfires, tip fires, and straw burning will increase. Pollution is cumulative and individual sources which seem innocuous in isolation become a menace when grouped together in some local concentration.

Great care will need to be exercised by all concerned in planning approvals to protect the amenity of the countryside, and as the powers available to local authorities are limited chance and immediate expediency may play a bigger part in determining the future appearance of our area than can the decisions of the planning authorities.

Perhaps the most immediate hazard to the district is due to the increase in road and rail traffic. Already roads serving the docks and industries of the Humber bank are congested. In the very near future however when the new refineries are completed and come into full production the situation will deteriorate very seriously, and no adequate effort has yet been made to render our communication lines adequate to meet this obviously foreseeable demand.

One cannot transport millions of tons of oil and oil products by rail on a system where the main roads are obstructed by level crossings without interfering with the free flow of road traffic, and if at the same

more millions of tons per annum are to be transported by road the effect could be most serious. Congestion could soon become so grave as to impair the effectiveness of the emergency services of the area. Despite these obvious dangers no attempt has been made to replace level crossings by bridges or to make the roads adequate.

While north to south communications are threatened in this way congestion to east and west road traffic will be assured by the continuing lack of a by-pass for the town of Brigg and the bottle-neck of Keadby Bridge.

Tanker vehicles are becoming increasingly heavy and on roads not designed to carry such loads their frequent passage can have a devastating effect. The loads they carry are frequently either explosive, inflammable or corrosive, and the noise and smell they produce can alarm and annoy those who are unfortunate enough to live too near the road. Accidents involving such vehicles occur from time to time, and the press reports of these do nothing to allay the fears of such people. It is not so much the intensity of noise which is harmful as the apprehension due to knowledge that the sound is made by a potentially dangerous load. The need for improvements in our roads cannot be denied, and failure by the Ministry of Transport to take account of a highly predictable future contingency and avoid this serious situation suggests that they may not have been kept informed of the plans of the industries concerned.

While we reap the advantages of industrial development in our area therefore we may well have to pay a high price for it. The fact that with forethought by some other party this price could have been greatly reduced will merely increase our frustration.

Causes of Premature Deaths.

Although the statistical tables only attribute three of the infant deaths which occurred in our area to congenital malformation in fact four of the babies which died were seriously malformed. Eight died from causes which might be attributed to the birth process such as bleeding into the brain as a result of birth injury, prematurity or neonatal asphyxia. Two infants died of fulminating bronch-pneumonia. The remaining infant death was of the type often called "cot death" where a baby is found dead in its cot or pram having asphyxiated, and often inhaled vomit. Such deaths have been investigated intensively and a report on them was published by the Ministry of Health in

1965. Had this report been given wider publicity such deaths should by now be very rare. Despite the fact that the report implicated sensitisation to cows' milk protein as a result of bottle feeding during the first two weeks of a baby's life, many women make no attempt to breast feed their babies even during their stay in hospital. I feel sure that if they were aware that breast feeding for so short a time as two weeks would help greatly to protect their babies from risk of sudden death during the succeeding eight months few women would fail at least to try natural feeding. Most people are aware of the hazard to babies of soft pillows but habits die hard and such pillows are still too frequently used. By taking these two simple precautions and protecting their babies from respiratory infection by not allowing anyone with a cold to go near them mothers could prevent cot deaths.

During 1966 we introduced our new caravan site licence conditions aimed at preventing overcrowding and so protecting infants. The response to these conditions has been very good, and apart from two borderline cases all overcrowding in caravans on licenced sites has been eliminated. Only one baby born to a caravan resident in 1966 died, and he died while still in the Maternity Hospital.

Several children died during the year, and one of these, a fifteen month old child suffering from an intolerance for wheat-gluten lived in a caravan and died of broncho-pneumonia, and there is no doubt that the lack of space in caravans contributes to the risk of respiratory infections such as this.

Three children aged between 4 and 10 died of malignant diseases - two of Leukaemia and one of a brain tumour - and in addition a fourteen year old boy died of congenital heart disease and a four year old of broncho-pneumonia.

Four young men aged from 19 to 30 died as a result of motor vehicle accidents, and four more aged from 23 to 35 died of other accidental injury. Five young adults - 2 men and 3 women aged between 29 and 44 died of cancer. Two young men died as a direct consequence of drinking too much alcohol - one from acute alcohol poisoning and one from the affects of drink on his liver. The remaining deaths of adults below the age of 45 were due to diabetes, (2), paralytic ileus secondary to disease of the gut (2), coronary heart disease (2),

a further two who died of broncho-pneumonia but in one of them this was secondary to kidney disease, and finally one committed suicide.

Clearly, although many of these deaths could not have been prevented some of them need never have happened. Drinking on such a scale as to endanger life is no pleasure, and only people with profound psychological troubles do it. Self-poisoning by alcohol or by cyanide should, and one hopes will, be preventable when adequate and acceptable means of treating psychiatric illness are developed and public opinion ceases to regard the drunkard or the mentally ill as either a joke or a skeleton to be kept hidden in the family cupboard. Although they will not themselves admit this or seek it these people need help, not contempt. We desperately need some means of motivating them to seek psychiatric treatment, and a real change in public attitudes could well provide such motivation. At present only a minority of alcoholics accept help, and then only so late that they have already destroyed their own careers and spoiled the lives of their wives and children.

Social Circumstances and Health

Despite the provisions of our "Welfare State" real poverty and hardship still exists. Many families with young children have to exist on incomes of less than £10 per week, and often well below the level recognised by the Ministry of Social Security as necessary for subsistence. This is due in part to the fact that the father is unskilled and can only earn a small basic wage, and in part to limitation of his earning capacity by ill-health or disability. The old vicious circle first recognised by the social reformers of the last century continues to operate. Poverty leads to malnutrition and impaired health; poor health reduces earning capacity, and leads to poverty. When a man finally becomes unable to work the family lives on grants from the Ministry of Social Security which may be reduced to below the recognised subsistence level to comply with the "wage stop" policy and ensure an incentive to returning to work. Consequently recovery is prevented.

The degree of poverty tends to increase with family size, and in an attempt to ease matters fathers of large families attempt more overtime than is good for them. This not only impairs their own health but also throws an excessive burden on their wives, who have to try to cope with all the work of

the large family on their own. More than half these large families live in council houses, but as insufficient large houses are built by local authorities they live under overcrowded conditions which are in themselves prejudicial to health. These, and other disturbing facts are shown by the recent survey carried out by the Ministry of Social Security.

This is a serious state of affairs, requiring urgent action by all concerned. So far as our activities are concerned there appear to be two useful lines of attack. One is to build a considerable number of larger houses. A request that this be done was passed from the Special Cases Committee to the Housing Committee during the year, and it is to be hoped that some four and five bedroomed houses will soon be built in response. The other line of attack would be to introduce a rent rebate scheme to permit those in need to pay smaller rents.

Between optimal health and complete disability due to recognised disease lies a vast hinterland of ill-defined disability and illness, including both physical and mental disorder. Many people suffer from conditions such as chronic bronchitis, asthma, anaemia or osteo-arthritis which while not severe enough to render them completely unfit for employment reduce their capacity for work and lead to recurrent sickness absence. Employers naturally prefer to employ those who can be relied on to work regularly and who show the greatest productivity. Consequently those workers whose performance is poorest tend to be sacked when there is a recession of any sort. Only the minority whose disability is so severe as to satisfy admission to the Disablement Register enjoy special protection. As those who employ more than 20 people are obliged to provide employment for the disabled, those with gross disability have some chance of employment, but the group of men who suffer from so called "minor" disorders tend to drift in and out of different unskilled jobs, always living on an inadequate income, frequently getting into debt, and tending because of unsatisfactory diet and housing to deteriorate. Society shows too little understanding or sympathy for these families and tends to criticise rather than help them. In response to this many of these people develop attitudes of antagonism to society and to authority.

As a public health authority it is our duty to do what we can to ensure the health of the people who live in this area. Agriculture, one of the industries providing the lowest basic wage is one of the main sources of employment. In consequence we have in our area a considerable proportion of families living at or below subsistence level. The Ministry of Social Security Survey showed that 43% of the low paid had more than 4 weeks sickness absence in a year as compared with 15% of the better paid, and the incidence of ill health in the children of the poor was 12% as compared with 8% in the children of wealthier families. There is a clear indication for special aid and consideration for this vulnerable group, and while we must rely on governmental action to increase family allowances and take whatever other measures may be needed to adjust levels of social security payments we can also help. Adequate provision of four and five bedroomed council houses at reasonable rentals would contribute significantly towards the solution of the problem, and deal with an aspect of it which the Ministry cannot itself tackle. It is up to you, and I feel sure that you will play your part.

The "Special Cases Committee" which in 1966 was promoted to a standing committee of the council did some useful work, despite the handicap of lacking both the funds and the statutory power to tackle some of the problems they wished to solve. After considering the circumstances and problems of individual families they made recommendations to other committees and helped to solve several social problems. It is gratifying to know that in 1967 a sum of money will be available to them for the purpose of assisting in the rehabilitation of problem families and the welfare of the aged by exercise of powers under section 94 of the 1957 Housing Act. One way in which this money is to be used is the purchase of special heating appliances which can be hired out to elderly people occupying some of the older houses or bungalows who are considered to be at risk of accidental hypothermia.

This condition causes death more frequently than statistics suggest. When an old person dies from cold injury the death is registered as due to a more remote cause. For example, an old lady who has a fall and hurts herself on her way to the toilet probably dies of cold injury but her death is ascribed to the fall and classified as accidental. It is only in recent years that

the dangers of cold injury have begun to be appreciated, and even to-day many bungalows for the aged are built without the adequate background heating to bedroom and bathroom which alone can prevent it. Many of our new bungalows are faulty in this respect, for although we have provided radiators run from the solid fuel stove in the living room these will only remain effective so long as the old person is fit enough to light and tend the fire. She is at the mercy of any sudden illness such as a stroke which might prevent her from tending her stove. Only some form of heat not dependent upon action by the tenant can protect an old person living alone, and the lack of this can turn a short term illness into a fatal hypothermia. Let us hope that the loan (or hire) of suitable appliances to some of those at risk may save a few lives. It can do so if you will look out for the danger and let me know which cases are at risk.

Apart from the two deficiencies - lack of sufficient four and five bedroomed council houses at reasonable rentals to meet the needs of large families, and the need for better and automatic background heating for all special dwellings for the aged our housing programme showed a welcome improvement. Unfortunately the increased building programme led to some difficulties with the housing revenue account and caused an increase in council house rents. Concern was expressed by some members that too many houses were being built in the Winterton area. Among the arguments put forward was the suggestion that by building so many houses we were depriving farmers of labour by enabling men to leave tied cottages and seek more remunerative employment in industry.

While this is undoubtedly occurring it should not influence our policy. We are a housing and health authority with a duty to ensure that people are adequately housed and to safeguard their health. It is no part of our function to perpetuate a housing shortage in order to force people to work for low wages on farms as a means of securing a tied cottage. Agriculture must compete with industry for labour and pay adequate wages. Farm work provides a more satisfying and healthier way of life than can many industries. If standards of housing and remuneration are adequate there is always likely to be a reasonable supply of labour for the farm. Men who choose to work on the land will be more satisfactory as workers than those who do it reluctantly as a means of securing a tied cottage. Real poverty is still far too common, and

a man with several children who finds he cannot make ends meet on an agricultural wage should be in a position to extricate himself from debt and provide for his family by seeking better paid employment. Poverty and poor housing are both potent causes of ill health, and it is up to us to abate them and not perpetuate them.

Housing

There are still far too many people in our area living under unsatisfactory conditions in houses lacking the standard amenities. Slowly we are eliminating the worst by means of slum clearance, and others are being improved with the aid of grants. This is happening in an unplanned and piecemeal fashion however, and we shall have to consider a more orderly programme if we are to be really effective. For example, where one house in a terrace is improved with grant aid we should use our powers under the 1964 Act to secure improvement of the whole row. This would avoid the situation of having, in a few years time, one good house attached to a row of slums. When this occurs one has either to put closing orders on the slums and keep unsightly derelicts as a standing memorial to our shortsighted policy, or include the good house in a Clearance Area, and so waste the money spent on improvements, or fail in our duty as a housing authority to clear the slums.

By a combination of effective and planned slum clearance, new house building and the making of improvement areas we could in a few years greatly improve the living conditions of the public and the appearance of some of our villages. Planning is however essential. Houses should be built where they are needed, a specified number being allocated for slum clearance. The letting of these should be a function of the slum clearance committee so as to enable them to deal with rows of property and secure early demolition.

The present method of letting houses makes nonsense of our attempts at slum clearance. A local representative informs us that he proposes to rehouse someone from an unfit house. Within two or three weeks the tenant has moved. Slum clearance procedure, however, takes considerably longer, and, except where the landlord is really public spirited, we find that the slum has already been re-let before we can make any order. Fortunately there are many helpful

and co-operative landlords, and to them I should like to express my gratitude. They suffer a financial penalty which the less scrupulous avoid, and their sacrifice deserves acknowledgment.

Another defect of our present system of house letting is the requirement that each parish has a separate waiting list, and applicants may only go on one of these. Since some villages have many more houses than others applicants who are well informed tend to apply for a village with plenty of houses and not the one they would prefer to live in. Others, by reason of choice of parish may have little chance of rehousing despite desperate need. Not only does this system prevent full weight being given to degree of need, but it also produces misleading impressions as to the needs for new houses in different villages.

Many applicants in great need of rehousing would be prepared to live in any of half a dozen villages accessible to their place of employment. A scheme whereby applicants could state in order of preference the parishes in which they would like to live would be preferable. Plainly this would be administratively difficult if we retained the old fashioned manual filing of application forms. A system using punched cards mechanically sorted by the machinery in the Treasurer's department would however solve the problem, and would be able quickly and reliably to turn up the details of all those on the waiting list who were suitable for a particular size and type of accommodation in a particular parish. In this way the individual parish waiting lists could be replaced by one list covering the whole Rural District and a more accurate and reliable indication of the housing needs of the area could be obtained from analysis of "first preference" without bias resulting from the present availability of houses. If in addition a system of points priority grading were added the machine could even make the selection of tenant, though this could still be left to small committees of councillors if preferred.

While the present method worked reasonably well when only a small number of houses was involved it is not fitted to the needs of a large authority. We have already reached the stage at which it is costly to operate. Often, when a tenant gives notice considerable expense in travelling and telephoning is involved before the next tenant is selected. When the person selected by the local representative declines further expense is involved repeating the process.

A slight change in procedure would save this expense and also enable the Slum Clearance Committee to deal with properties beforehand. Small "area committees" of councillors from groups of parishes could meet periodically and agree, well in advance, on short selected lists of applicants for the various classes of accommodation putting them into order of priority. The officers would then automatically offer any house becoming available to the person at the top of the appropriate list without the expense of numerous telephone calls or delay due to local representatives needing to meet specially. The Slum Clearance Committee could be advised of the "selected" lists as soon as they were made.

Reorganisation on these lines would tend to reduce the pressures brought to bear on individual councillors by those applicants who endeavour so to influence your decisions. As the number of houses increases this factor will become increasingly important.

Slum Clearance

A properly planned slum clearance programme has never been followed in our area. In consequence our rate of demolishing slums remains unsatisfactory. Some years ago you agreed that when major housing development occurs in a village all the unfit houses in that village should be dealt with. This was indeed done in Scawby with considerable success. Since then, however, although large-scale housing development has been undertaken in two villages the slum clearance has been incomplete and chaotic, and has followed in the wake of decisions regarding who should be rehoused. As rehousing can be achieved much more quickly than the making of an order some landlords of slum property have put the tenants into the houses before any order could be made.

In addition, as individual orders can be made more rapidly than clearance orders we have been forced to use section 16 of the Housing Act in situations where section 42 would have been far more appropriate. Section 42 enables an authority to clear an area, even if not all the property in it could be dealt with individually, making it possible to include business premises and produce a site which is capable of being redeveloped. Furthermore, if this section of the Act is used and the site is not being redeveloped within 18 months the Council has the right to acquire it and redevelop it. For areas in the

middle of a village where derelict sites are an eyesore this is extremely useful, and can ensure that the appearance of the village is not marred for too long a time.

During the recent past our failure to use section 42, determined principally by the need to get an order quickly to prevent re-letting, has led to the village of Winterton being marred by two rows of unsightly derelict empty houses in central situations where they impair amenity. We must learn from past mistakes and foresee such problems in future.

Refuse Collection and Disposal

During the year some improvement was made in the frequency of refuse collection, and a part of the district was changed over from the traditional dustbin to the newer paper sack system. This proved to be a real improvement, and it is hoped that in due course the system can be applied throughout the district. Dustbins are poor neighbours, and when emptied as infrequently as they are at present in some parts of the district they can cause nuisance. A reliable and regular weekly service is our aim, but it can only be achieved if we are prepared to pay for it.

Collection of refuse is only half of the battle. Its ultimate disposal creates problems, and in our area where a number of tips are in use grave nuisance is caused through smoke and smell from tip fires and by wind blown dust and paper. At none of our tips do we currently conform to the accepted standards of controlled tipping.

Smoke from combustion of refuse has a considerable content of benzopyrene, a potent carcinogen. Its continued inhalation causes risk of lung cancer. For a Public Health authority charged with duty of preventing nuisance and of safeguarding health to itself cause such a hazard is indefensible.

Hygienic disposal of refuse can be achieved in a number of ways. Tipping, even if fully controlled, is seldom completely satisfactory as some nuisance from blown dust and paper is inevitable on windy days. In addition, as the modern plastics do not decompose, complete decay to form a satisfactory humus will not occur with unsorted refuse. The stability of modern plastic wrapping films also renders the pulverisation and composting of unsorted

refuse unsatisfactory and preliminary sorting of refuse to remove such materials is costly. The only means of disposing of refuse without going to the expense of preliminary sorting and which is completely free of nuisance is by incineration in a specially designed furnace capable of burning without causing smoke, smell or dust.

At the International Clean Air Congress in London details were given of the system used at Herning in Denmark, where the refuse from a population about three-quarters of that in our district is burned in such a plant, the heat generated being used to heat water and sold to a district heating scheme for use in centrally heating and supplying the domestic hot water needs of houses.

For a district such as ours to change from a primitive system to one as advanced as this may seem startling. The suggestion is reasonable, however, for we have certain material advantages. We are at the very beginning of a period of rapid industrial and consequent population expansion, occurring at the very time when the newly discovered North Sea Gas starts to come ashore at Killingholme.

Although district heating would be expensive to install in an existing community it could be put in much more cheaply in new development. At Herning the scheme supplies heat to households much more cheaply than they could produce it for themselves, and yet has nearly paid off its capital cost in only 10 years. Thus houses are kept warmer for less money, air pollution is avoided, and the cost of building chimneys and installing fireplaces is saved. Yet Herning has to use imported oil as its main fuel and needs expensive storage tanks and burning equipment. We could use natural gas as the main fuel to deal with the seasonal and diurnal variations in demand, but like Herning use refuse to provide part of the steady basal load of heat needed all the year round for hot water. The refuse at Herning has a high moisture content like ours, and the plant is designed to deal with refuse with a water content as high as 30 per cent. It produces no smell, dust or smoke and there are no complaints of noise although the plant is in the middle of the town, and only 27 yards from the nearest house!

It is greatly to the council's credit, and an indication of their progressive thinking that a deputation is to be sent to study the Herning scheme in operation to assess its suitability for our needs, and that Mr. Stewart has

been asked to investigate the possibilities of the alternatives of pulverisation and composting as well as to prepare a scheme for centralised fully controlled tipping.

Provided you are prepared to pay for it a really satisfactory service with regular and reliable weekly collection coupled with hygienic disposal can be provided. If full advantage is to be taken of present opportunities for industrial population and economic expansion it will have to be, for a district marred by serious nuisance is not attractive to residents or potential developers. While the Council by its over-zealous economics pollutes the air with smoke and smell from burning tips, litters the countryside with windblown paper, and by insufficiently frequent collection of refuse permit flies to breed in dustbins, its ability to stop nuisance caused by others is impaired. We all want our district to be attractive, clean and prosperous, and it is up to us to make it so. A really first class refuse service would help us to achieve this aim. Let us have it, even if it does cost a little more. While any increase in the rates leads to protest, so do our present methods of refuse disposal and our present fortnightly collection services. The nuisance is with us all the time, and not just two days in the year!

Notifiable diseases.

During 1966 the incidence of scarlet fever rose to a higher level than we have seen for many years. It is doubtful however whether this has any significance beyond showing that the type of streptococcus prevailing in the area was one which produces the toxin which causes rash. Tonsillitis without rash is not notifiable, but it is often due to the same germ. The small outbreak of food poisoning which occurred at a school was investigated as soon as it was reported but its cause was never determined, and no pathogen was found in any of the specimens taken.

The mildness of this disease and interval between ingestion of food and onset of diarrhoea suggested that it might be due to *Cl. Welchii*, a common cause of food poisoning in England. We were therefore surprised when this organism was not found. An attempt was subsequently made to seek evidence of *B. cereus*, an organism which produces disease in a manner similar to *Cl. Welchii* and which has caused outbreaks in Scandinavian countries in recent

years. This organism is not routinely sought by laboratories in England, and by the time this possibility was considered none of the specimens taken soon after the outbreak remained.

There were welcome drops in incidence of dysentery and of pulmonary tuberculosis in 1966. The latter disease fell to 7, which was the average incidence in this district prior to the unfortunate experiences of 1965.

Port Health

Although you had decided six months earlier to resume direct responsibility for the port of Killingholme it was not until the end of June 1966 that the formalities of terminating the arrangement by which the Port Health Inspector of Grimsby R.D. did this on your behalf were completed. Since July 1st 1966 our inspectors have dealt with all ships berthing at the oil jetties at Killingholme. The numbers, however, were unusually small because one of the jetties was unusable, having been rammed and severely damaged by a trawler. Consequently our inspectors were only called upon to deal with 19 ships during 1966. Of these only one had come from an infected port and two from ports outside the "excepted area". All the ships inspected had valid de-ratting or exemption certificates.

In future years the port health work is likely to prove more onerous.

Water Supplies

As usual the water supplied throughout our area by the North Lindsey Water Board was of excellent quality. During the period following the pea harvest, when juice from stacked pea haulm in quarries caused pollution of underground water and affected the quality of the raw water at Barrow Bore, chlorination was stepped up, and despite counts of type 1 coli of over 200 per 100 ml., no organisms were found in specimens of water distributed.

The pollution recurred despite the co-operation of the farmer who stacked his silage in a field instead of his quarry as a neighbouring farmer found his alternative site unusable due to the effects of rain. Discontinuance of stacking in the one quarry did however lead to a longer delay in the appearance of pollution and a slight reduction in its severity.

There are still, within our district, considerable numbers of private

water sources, which although usually of satisfactory quality may be subject to intermittent pollution. These private sources cannot be sampled frequently like the public sources, and the water from them is not chlorinated to kill germs which may gain access. Slow progress continues to be made towards eliminating these supplies, but those who rely on them would be well advised, if they are within reach of a public main, to change to mains water. While this would cost a little more the increased safety from risk of waterborn disease is adequate justification.

Sewering and Sewage Disposal.

Good progress was maintained in sewerage parts of the district during 1966, and as one scheme is completed another is commenced. There remain however too many villages which still lack sewers, and where offensive and unhygienic pollution of ditches by sullage and septic tank effluents gives rise to nuisance. Among the worst villages in this respect are those situated along the edge of the wolds to the east of the Ancholme valley. The scheme to pipe sewage from this group of villages for treatment at the partial treatment plant at Winteringham should solve these problems and every effort should be made to expedite it. It is satisfying to see the list of fully sewerage villages grow year by year. Schemes completed in 1966 were Ulceby, Wootton and Thornton Curtis, Alkborough and Ferry Road West, The Killingholmes and East Halton.

Air Pollution.

Monitoring the amounts of dust from cement works in the area falling in the vicinity of houses was continued during 1966. While deposits were still heavier than are really acceptable the gauges encircling the Kirton Lindsey/Hibaldstow factory have shown a considerable improvement since the fitting of two of the kilns with Electrostatic Precipitators. In future when the smaller kilns will either not be used or else fitted with dust arrestment plant a further improvement can be expected.

The position at South Ferriby where the other factory is situated is less satisfactory. The precipitator at that factory is old and inefficient and considerable dust is produced from other parts of the

plant and emitted at low level from ventilators. Deposits at gauges near this factory showed an increase in dust emission.

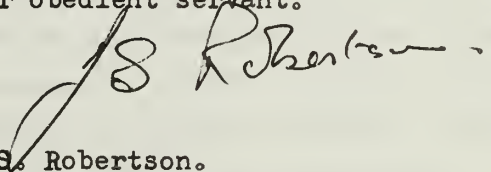
The plant in question is being rebuilt and re-equipped. In future it will have an increased output, but we have been assured that more effective dust arrestment equipment will be installed and nuisance minimised.

A considerable amount of work was done during the year by your public health department on which I have not chosen to comment. To deal with everything in one report would render it a burden to read. Some of this work appears as statistics in the tables which follow, but much is omitted. I commend the tables to your attention.

As usual much of the information in the latter part of the report derives from the work of your public health inspectors, who have worked hard. Mention must also be made of Mr. Chapman whose efforts in the fields of administration, organisation, record keeping and analysis also make a considerable contribution.

I am,

Your obedient servant.

A handwritten signature in dark ink, appearing to read 'J. S. Robertson', written over the typed name.

J. S. Robertson.

Medical Officer of Health.

GENERAL DESCRIPTION OF THE DISTRICT

The Rural District of Glanford Brigg covers an area of about 136,595 acres and includes 41 parishes. The Population is 39,040.

Although in the past the district has been mainly agricultural rapid industrial development is now occurring on the Humber bank, where there are new oil refineries under construction, and the Gas Board's new plant has been built. Elsewhere there are tileries and brickworks, chemical and fertiliser works, Iron Stone Mines, and Cement Works. There is a small shipyard where barges are repaired, and part of a steelworks has extended into the district. There are a number of jetties and wharves where both coastal and foreign going ships berth, and Immingham Dock is extending into our district. A new nylon plant is under construction, and there are a variety of other smaller industries offering a wide range of employment.

It now seems probable that there will soon be even more rapid industrial expansion, with consequent population increase by migration during the next few years. This may well change the whole character of the northern half of the district, and particularly those parts adjacent to the deep water channel of the Humber.

The western part of the district rises from the banks of the Trent to an escarpment of Limestone and Ironstone which slopes gently down to the Ancholme valley.. To the east of the Ancholme is a chalk escarpment from which the Wolds slope north east until finally the rather flat area, where clay overlies the chalk forms a coastal plain. As the new industrial development is predominantly on this flat clay area it should not spoil any of our natural beauty spots.

Rateable value at 31st March 1967	. . . £1,611,358
Product of a penny rate 1966/67	. . . £6,271.

VITAL STATISTICS

	<u>1964</u>	<u>1965</u>	<u>1966</u>
Mid-year population	37,040	37,400	39,040
Live births	834	845	894
Stillbirths	20	18	9
Infant deaths under 4 weeks	12	8	10
Total deaths	406	393	413

	Legitimate			Illegitimate			Total
	Male	Female	Tot.	Male	Female	Tot.	
Live births	439	415	854	19	21	40	894
Stillbirths	3	5	8	1	-	1	9
Infant deaths under 1 yr.	8	6	14	-	1	1	15
Infant deaths under 4 wks.	5	4	9	-	1	1	10

	Glanford Brigg R.D.		England and Wales	
	<u>1965</u>	<u>1966</u>	<u>1965</u>	<u>1966</u> (prov.)
Crude Birth Rate	22.6	22.9	18.1	17.7
Corrected Birth Rate *	22.4	22.7	(18.1)	
Stillbirth Rate	20.9	9.9	15.8	15.4
Infant Mortality Rate	21.3	16.8	19.0	19.0
Legitimate Infant Mortality Rate	20.1	16.4	18.5	
Illegitimate Infant Mortality Rate	41.7	25.0	24.8	
Neonatal Mortality Rate	9.5	11.2	12.9	12.9
Early Neonatal Mortality Rate	9.5	11.2	11.2	11.1
Perinatal Mortality Rate	30.1	21.0	26.9	26.3
Illegitimacy Rate	5.7	4.5	7.7	
Crude Death Rate	10.5	10.6	11.5	11.7
Corrected Death Rate*	11.2	11.3	(11.5)	

* These corrections take account of the different proportions of old and young people in the area, and make resulting rate comparable with that for England and Wales. Thus a resort to which old people retire would have a high crude rate, but a low comparability factor would correct the false impression that this was an unhealthy area. The comparability factor for births in this district is 0.99 for births and 1.07 for deaths.

CAUSES OF DEATH IN THE DISTRICT DURING THE YEAR 1966

(Registrar Generals Figures)

CAUSES OF DEATH	AGE IN YEARS						TOTAL	
	0-	1-	15-	25-	45-	75+	M	F
Tuberculosis, respiratory	-	-	-	-	-	1	1	-
Tuberculosis, other	-	-	-	-	1	1	1	1
Syphilitic disease	-	-	-	-	-	-	-	-
Diphtheria	-	-	-	-	-	-	-	-
Whooping Cough	-	-	-	-	-	-	-	-
Meningococcal Infection	-	-	-	-	-	-	-	-
Poliomyelitis	-	-	-	-	-	-	-	-
Measles	1	-	-	-	-	-	1	-
Other Inf. & Parasitic Dis.	-	-	-	-	-	-	-	-
Cancer - Stomach	-	-	-	-	5	3	4	4
Cancer - Lung, bronchus	-	-	-	1	11	1	11	2
Cancer - Breast	-	-	-	-	5	1	-	6
Cancer - Uterus	-	-	-	-	-	-	-	-
Cancer - other	-	1	-	4	22	9	19	17
Leukaemia	-	2	-	-	3	-	3	2
Diabetes	-	-	-	1	-	1	1	1
Vascular Lesions (C.N.S)	-	-	-	-	32	40	38	34
Coronary Disease, angina	-	-	-	3	53	32	57	31
Hypertension	-	-	-	-	2	3	2	3
Other heart disease	-	-	-	-	16	38	27	27
Other circulatory disease	-	-	-	-	8	9	7	10
Influenza	-	-	-	1	1	1	1	2
Pneumonia	2	1	-	-	7	7	10	7
Bronchitis	-	-	-	-	10	7	13	4
Other respiratory disease	-	-	-	-	2	-	1	1
Ulcer - Stomach & Duodenum	-	-	-	-	1	-	1	-
Gastritis, Enteritis & Diarrhoea	-	-	-	1	1	1	2	1
Nephritis & Nephrosis	-	-	-	1	1	3	-	5
Hyperplasia of Prostate	-	-	-	-	-	5	5	-
Pregnancy	-	-	-	-	-	-	-	-
Congenital malformation	3	1	-	-	-	-	2	2
Other Diseases	8	1	-	3	6	6	14	10
Motor Accidents	-	-	2	3	3	-	8	0
All other accidents	1	-	2	2	2	2	6	3
Suicide	-	-	-	1	3	1	3	2
Homicide	-	-	-	-	-	-	-	-

CAUSES OF DEATH AT VARIOUS PERIODS OF LIFE

(Locally compiled statistics)

CAUSES OF DEATH	AGE IN YEARS			
	0 - 1	1 - 14	15 - 49	50+
<u>Infectious Diseases</u>				
Tuberculosis, respiratory	-	-	-	1
Tuberculosis, other	-	-	-	-
Syphilitic disease	-	-	-	-
Diphtheria	-	-	-	-
Whooping Cough	-	-	-	-
Meningococcal infection	-	-	-	-
Acute Poliomyelitis	-	-	-	-
Measles	1	-	-	-
Other Infective and Parasitic diseases	-	-	-	-
<u>The Cancers</u>				
Stomach	-	-	-	8
Lung and Bronchus	-	-	3	12
Breast	-	-	-	6
Uterus	-	-	-	-
Other	-	1	6	30
Leukaemia, Aleukaemia	-	2	-	3
Diabetes	-	-	1	-
<u>Cardiovascular Diseases</u>				
Vascular lesions of the nervous system	-	-	2	72
Coronary disease, Angina	-	-	3	69
Hypertension with heart disease	-	-	-	13
Other heart disease	-	-	1	61
Other circulatory disease	-	-	-	15
<u>Respiratory Diseases</u>				
Influenza	-	-	-	3
Pneumonia	2	2	2	18
Bronchitis	-	-	2	18
Other	-	-	-	1
Ulcer of stomach and duodenum	-	-	-	1
Gastritis, Enteritis and Diarrhoea	-	-	-	-
Nephritis and Nephrosis	-	-	1	2
Hyperplasia of prostate	-	-	-	5
Pregnancy, Childbirth and Abortion	-	-	-	-
Congenital malformation	3	1	-	-
Other diseases	9	-	4	13
Motor Vehicle accidents	-	-	6	2
All other accidents	-	-	4	5
Suicide	-	-	1	4
Homicide	-	-	-	-

NOTIFICATIONS OF INFECTIOUS AND OTHER DISEASES BY AGE GROUPS

Disease	0-	1-	2-	3-	4-	5-	10-	15-	25-	45-	65+	N.K.	Total
Measles	24	45	51	65	56	185	4	-	-	-	-	16	446
Scarlet Fever	-	-	1	5	5	23	2	-	1	-	-	4	41
Dysentery	7	3	1	3	1	1	2	2	-	-	2	2	24
Food Poisoning	-	-	-	-	-	8	3	-	-	-	-	-	11
Infective Jaundice	-	-	-	-	-	2	1	4	-	2	-	2	11
Whooping Cough	2	-	2	1	1	1	-	-	-	-	-	-	7
Tuberculosis (Resp.)	-	-	-	-	-	1	-	-	3	3	-	-	7
Pneumonia	-	-	-	-	-	-	-	-	-	-	3	-	3
Ac. Encephalitis (Post Inf.)	-	-	-	1	-	-	-	-	1	-	-	-	2
Meningococcal Inf.	1	-	-	-	-	-	-	-	-	-	-	-	1
Total:	34	48	55	75	63	221	12	6	5	5	5	24	553

During the year there were no cases of the following diseases notified:-

Non-pulmonary Tuberculosis; Poliomyelitis; Diphtheria; Smallpox; Typhoid Fever; Erysipelas;
Puerperal Pyrexia; Ophthalmia Neonatorum; Anthrax; Leptospirosis; Paratyphoid Fever.

PARTICULARS OF IMMUNISATION AND VACCINATION CARRIED OUT
IN THE AREA DURING 1966

Type of Vaccination or Immunisation	Under 1	1 - 4	5 - 14	15 or over	Total
Diphtheria and Whooping Cough immunisations	-	-	1	-	1
Diphtheria, Tetanus and Whooping Cough immunisations					
Initials	279	383	13	-	675
Boosters	-	291	66	-	357
Diphtheria and Tetanus immuni- sations					
Initials	-	3	57	-	60
Boosters	-	32	296	-	328
Tetanus Immunisation					
Initials	-	1	44	40	85
Boosters	-	-	1	8	9
Smallpox			<u>5 - 15</u>		
Vaccination	31	251	20		302
Re-Vaccination	-	2	23		25

PARTICULARS OF POLIOMYELITIS VACCINATIONS CARRIED OUT IN THE
GLANFORD BRIGG R.D. DURING THE YEAR ENDED 31st DECEMBER 1966

Salk Vaccine

	Persons born in the years							Others
	66	65	64	63	62	61 - 55	54 - 50	
2 Injections	1	4	1	-	-	-	-	-
3 Injections	-	-	4	-	-	-	-	-
4th Injection	-	-	-	-	-	6	-	-
Total:	1	4	5	-	-	6	-	-

Oral Vaccine

	Persons born in the years							Others
	66	65	64	63	62	61 - 55	54 - 50	
Initial course of 3 oral doses	176	396	55	26	16	41	17	-
Oral booster after 2 injections	-	-	-	-	-	-	-	-
Booster dose of oral vaccine	-	-	2	2	16	367	8	-
Total:	176	396	57	28	32	408	25	-

WATERBacteriological ExaminationsPublic Supplies

Barrow-on-Humber Bore

As usual, pollution of the raw water was noted in the weeks following the beginning of the pea harvest. Following tracing of this pollution to the making of pea silage in quarries two miles from the bore one farmer made his stack on a surface site instead of in a quarry, but his neighbour continued to use a quarry. It is believed that the delay in appearance of pollution, as compared with previous years, and the slight reduction in severity of pollution, were both due to the discontinuation of silage making in the one quarry and the longer time taken by material from the other quarry to reach the bore.

Presumptive Coli Count	"Raw" Water		Chlorinated Water	
	Routine Samples	Special Samples	Routine Samples	Special Samples
Less than 1 per 100 ml.	77	-	49	8
1 to 2 per 100 ml.	24	2	-	-
3 to 10 per 100 ml.	13	8	-	-
More than 10 per 100 ml. or E coli type 1 present	38	14	-	-
Total:	152	24	49	8

Note:- The "routine" samples are those taken each Monday throughout the year, a sample being taken from each of the bores from which water is being abstracted at the time of sampling. The "special" samples are the additional ones which were taken daily during the period following the beginning of the pea harvest in order to detect the onset and measure the extent of pollution from pea silage juice. These are shown separately since their inclusion among the "routine" samples would invalidate comparisons with figures for years when the additional samples were not taken. The "special" samples were only taken from one borehole as experience has shown that when serious pollution occurs all four bores are affected.

Barton-on-Humber Bore

Presumptive Coli Count	"Raw" Water	Chlorinated Water
Less than 1 per 100 ml.	96	51
1 to 2 per 100 ml.	2	-
3 to 10, per 100 ml.	2	-
More than 10 per 100 ml or E Coli type 1 present	2	-
TOTAL	102	51

Winterton Holmes Bore.

Presumptive Coli Count	"Raw" Water	Chlorinated Water
Less than 1 per 100 ml.	49	49
1 to 2 per 100 ml.	-	-
3 to 10 per 100 ml.	-	-
More than 10 per 100 ml. or E Coli type 1 present	-	-
TOTAL	49	49

Private Households

(Mains Water - All Sources)

Presumptive Coli Count	Chlorinated Water
Less than 1 per 100 ml.	27
1 to 2 per 100 ml.	3
3 to 10 per 100 ml.	-
More than 10 per 100 ml or E Coli type 1 present	-
TOTAL TESTED	30

Private supplies

Presumptive Coli Count	No. of Samples.
Less than 1 per 100 ml	43
1 to 2 per 100 ml	9
3 to 10 per 100 ml	3
More than 10 per 100 ml or E Coli type 1 present	13
TOTAL TESTED	68

Details of Domestic Supplies.

Number of houses supplied from public mains:

in house	...	...	...	96%
outside tap..	...	...	...	2%

Houses supplied from private sources:

in house	...	...	...	1%
not in house.	...	...	...	1%

Number of private sources considered to be unsatisfactory.. ... 1
plus private wells

Number of houses supplied therefrom 350

CHEMICAL ANALYSESBarrow-on-Humber Bore.

							Raw Water	Treated (Softened) Water
Appearance	...	...	...	...	...	...	Clear	Clear
Colour	...	...	...	...	...	...	Colourless	Colourless
Taste	...	...	...	...	...	...		Normal
Smell	...	...	...	...	...	...	None	None
							<u>Parts per million</u>	
Reaction pH value	...	...	...	...	...	...	7.4	7.4
Free Carbon Dioxide as CO_2			...	...	...	...	9.0	6.0
Ammoniacal Nitrogen as N			...	...	...	...	0.016	0.016
Albuminoid Nitrogen as N			...	...	...	...	0.024	0.016
Nitrous Nitrogen as N	...	...	...	...	...	...	none	none
Nitric Nitrogen as N	...	...	...	...	...	...	3.73	3.98
Poisonous Metals (Lead etc)	...	...	...	...	...	...	none	none
Hardness (Calculated from Mineral Analysis as CaCO_3)							375.5	99.7
Temporary	...	...	...	...	...	...	172.8	nil
Permanent	...	...	...	...	...	...	0.32	0.36
Permanganate Figure (4 hours at 80°F) as O...							202.7	99.7
<u>Mineral Analysis</u>								
Silica as SiO_2	...	...	...	...	...	...	8.0	8.0
Iron as Fe_2O_3	...	...	...	...	...	...	0.03	0.17
Aluminium as Al_2O_3	...	...	...	...	...	...	0.38	0.16
Calcium as Ca	...	...	...	...	...	...	145.44	35.16
Magnesium as Mg	...	...	...	...	...	...	2.98	2.90
Sodium as Na	...	...	...	...	...	...	2.17	129.16
Carbonates as CO_3	...	...	...	...	...	...	121.56	121.56
Chlorides as Cl	...	...	...	...	...	...	41.0	40.00
Nitrates as NO_3	...	...	...	...	...	...	16.51	17.62
Sulphates as SO_4	...	...	...	...	...	...	102.05	103.04
Fluorine as F (by the distillation method)	...	...	...	...	...	...	0.15	0.15
Manganese as Mn	...	...	...	...	...	...	none	none
<u>Probable composition of mineral constituents</u>								
Silica	...	...	...	...	...	...	8.0	8.0
Iron Oxide	...	...	...	...	...	...	0.03	0.17
Aluminium Oxide	...	...	...	...	...	...	0.38	0.16
Calcium Carbonate	...	...	...	...	...	...	202.74	87.81
Calcium Sulphate	...	...	...	...	...	...	144.60	
Calcium Chloride	...	...	...	...	...	...	60.11	
Magnesium Chloride	...	...	...	...	...	...	3.48	
Magnesium Carbonate	...	...	...	...	...	...		10.06
Sodium Carbonate	...	...	...	...	...	...		109.09
Sodium Chloride	...	...	...	...	...	...		65.94
Sodium Sulphate	...	...	...	...	...	...		152.38
Sodium Nitrate	...	...	...	...	...	...	8.02	24.16
Magnesium Nitrate	...	...	...	...	...	...	12.75	
							<u>440.11</u>	<u>457.77</u>

Barton-on-Humber Bore

							Raw Water	Treated (Softened) Water
Appearance	...	...	...	...	...	...	Clear	Clear
Colour	...	...	...	...	...	...	Colourless	Colourless
Smell	...	...	...	...	...	...	none	none
							Parts per million	
Reaction pH value	...	...	...	...	...	...	7.0	7.2
Free Carbon Dioxide as CO_2	...	...	...	...	...	...	7.0	7.0
Ammoniacal Nitrogen as N	...	...	...	...	...	...	0.048	0.072
Albuminoid Nitrogen as N	...	...	...	...	...	...	0.104	0.080
Nitrous Nitrogen as N	...	...	...	...	...	...	none	none
Nitric Nitrogen as N	...	...	...	...	...	...	2.45	2.43
Poisonous Metals (Lead etc)	...	...	...	...	...	...	none	none
Hardness (calculated from Mineral Analysis as CaCO_3)	...	...	...	...	...	...	324.9	111.9
Temporary	...	...	...	...	...	...	208.4	111.9
Permanent	...	...	...	...	...	...	116.5	nil
Permanganate Figure (4 hours at 80°F) as O...	...	...	...	...	...	...	0.20	0.36
Alkalinity as CaCO_3	...	...	...	...	...	...	208.4	111.9
<u>Mineral Analysis</u>								
Silica as SiO_2	...	...	...	...	...	...	4.00	4.00
Aluminium as Al_2O_3	...	...	...	...	...	...	0.26	0.26
Iron as Fe_2O_3	...	...	...	...	...	...	0.06	0.03
Calcium as Ca}	...	...	...	...	...	...	119.99	37.98
Magnesium as Mg}	...	...	...	...	...	...	6.13	4.15
Sodium as Na}	...	...	...	...	...	...	17.91	117.80
Carbonates as CO_3	...	...	...	...	...	...	124.98	122.02
Chlorides as Cl}	...	...	...	...	...	...	39.00	43.00
Nitrates as NO_3	...	...	...	...	...	...	10.84	10.76
Sulphates as SO_4	...	...	...	...	...	...	87.90	91.52
Fluorine as F (by the distillation method)	...	...	...	...	...	...	0.23	0.19
Manganese as Mn}	...	...	...	...	...	...	none	none
<u>Probable composition of Mineral constituents:-</u>								
Silica	...	...	...	...	...	...	4.00	4.00
Aluminium Oxide	...	...	...	...	...	...	0.26	0.26
Iron Oxide	...	...	...	...	...	...	0.06	0.03
Calcium Carbonate	...	...	...	...	...	...	208.44	94.86
Calcium Sulphate	...	...	...	...	...	...	124.05	---
Magnesium Carbonate	...	...	...	...	...	...	---	14.39
Magnesium Sulphate	...	...	...	...	...	...	0.48	---
Magnesium Chloride	...	...	...	...	...	...	23.61	---
Sodium Carbonate	...	...	...	...	...	...	---	96.99
Sodium Sulphate	...	...	...	...	...	...	---	135.35
Sodium Chloride	...	...	...	...	...	...	35.31	70.89
Sodium Nitrate	...	...	...	...	...	...	14.86	14.75
							<u>411.07</u>	<u>431.52</u>

Winterton Bore

							Raw Water	Treated (Softened) Water
Appearance	...	...	...	...	...	...	very slightly turbid	Clear
Colour	...	...	...	...	...	...	faintly yellow	Colourless
Taste	...	...	...	...	...	...		Normal
Smell	...	...	...	...	...	...	none	none
							<u>Parts per million</u>	
Reaction pH value	...	...	...	...	...	...	7.5	7.2
Free Carbon Dioxide as CO_2	...	...	...	...	...	...	8.0	3.0
Ammoniacal Nitrogen as N	...	...	...	...	...	...	0.064	0.032
Albuminoid Nitrogen as N	...	...	...	...	...	...	0.032	0.016
Nitrous Nitrogen as N	...	...	...	...	...	...	none	none
Nitric Nitrogen as N	...	...	...	...	...	...	2.44	1.47
Poisonous Metals (lead etc)	...	...	...	...	...	...	none	none
Hardness (Calculated from Mineral Analysis) as CaCO_3	...	...	...	...	...	...	488.3	117.3
Temporary	...	...	...	...	...	...	278.8	60.8
Permanent	...	...	...	...	...	...	209.5	56.5
Permanganate Figure (4 hours at 80°F) as O	...	...	...	...	...	...	0.44	0.48
Alkalanity as CaCO_3	...	...	...	...	...	...	278.8	60.8
<u>Mineral Analysis</u>								
Silica as SiO_2	...	...	...	...	...	...	8.0	7.0
Iron as Fe_2O_3	...	...	...	...	...	...	0.57	0.09
Aluminium as Al_2O_3	...	...	...	...	...	...	0.17	0.21
Calcium as Ca	...	...	...	...	...	...	152.32	25.84
Magnesium as Mg	...	...	...	...	...	...	26.21	12.82
Sodium as Na	...	...	...	...	...	...	69.66	146.10
Carbonates as CO_2	...	...	...	...	...	...	167.15	36.47
Chlorides as Cl	...	...	...	...	...	...	71.0	71.0
Nitrates as NO_3	...	...	...	...	...	...	10.80	6.51
Sulphates as SO_4	...	...	...	...	...	...	241.86	258.10
Fluorine as F (By the distillation method)	...	...	...	...	...	...	0.19	0.15
Manganese as Mn	...	...	...	...	...	...	0.027	none
<u>Probable composition of Mineral constituents:-</u>								
Silica	...	...	...	...	...	...	8.0	7.0
Iron Oxide	...	...	...	...	...	...	0.57	0.09
Aluminium Oxide	...	...	...	...	...	...	0.17	0.21
Calcium Carbonate	...	...	...	...	...	...	278.77	60.82
Calcium Sulphate	...	...	...	...	...	...	138.21	5.06
Magnesium Sulphate	...	...	...	...	...	...	129.74	63.46
Sodium Sulphate	...	...	...	...	...	...	60.52	301.53
Sodium Chloride	...	...	...	...	...	...	117.05	117.05
Sodium Nitrate	...	...	...	...	...	...	14.81	8.92
							<u>747.84</u>	<u>564.14</u>

Appleby Pumping Station

Appearance	...	...	...	...	...	...
Colour	...	...	...	...	...	...
Smell	...	...	...	...	...	...

Raw Water

Clear
Colourless
none

Parts per million

Reaction pH value	...	...	...	...	...	6.9
Free Carbon Dioxide as CO_2	...	...	...	...	...	9.0
Ammoniacal Nitrogen as N	...	...	...	...	...	0.040
Albuminoid Nitrogen as N	...	...	...	...	...	0.048
Nitrous Nitrogen as N	...	...	...	...	...	none
Nitric Nitrogen as N	...	...	...	...	...	3.96
Poisonous Metals (lead etc)	...	...	...	...	...	none
Hardness (Calculated from Mineral Analysis) as CaCO_3	...	...	...	...	...	695.4
Temporary	...	...	...	...	...	241.6
Permanent	...	...	...	...	...	453.8
Permanganate Figure (4 hours at 80°F) as O...	...	...	...	...	...	0.16
Alkalinity as CaCO_3	...	...	...	...	...	241.6

Mineral Analysis

Silica as SiO_2	...	...	...	...	...	6.00
Alumina as Al_2O_3	...	...	...	...	...	nil
Iron as Fe_2O_3	...	...	...	...	...	0.09
Calcium as Ca}	...	...	...	...	...	258.96
Magnesium as Mg.	...	...	...	...	...	11.82
Sodium as Na	...	...	...	...	...	7.15
Carbonates as CO_3	...	...	...	...	...	144.86
Chlorides as Cl	...	...	...	...	...	64.0
Nitrates as NO_3	...	...	...	...	...	17.53
Sulphates as SO_4	...	...	...	...	...	350.27
Fluorine as F (by the distillation method)	...	...	...	...	...	0.23
Manganese as Mn	...	...	...	...	...	none

Probable composition of Mineral constituents:-

Silica	...	...	...	...	...	6.00
Aluminium Oxide	...	...	...	...	...	nil
Iron Oxide	...	...	...	...	...	0.09
Calcium Carbonate	...	...	...	...	...	241.59
Calcium Sulphate	...	...	...	...	...	496.38
Calcium Chloride	...	...	...	...	...	44.65
Magnesium Chloride	...	...	...	...	...	46.29
Sodium Nitrate	...	...	...	...	...	24.03
Sodium Chloride	...	...	...	...	...	1.65
						<u>860.68</u>

Scotney Bore

Appearance	...	...	...	...	...	...
Colour	...	...	...	...	...	...
Smell	...	...	...	...	...	...

Raw Water

Clear
Slightly yellow
None

Reaction pH value
-------------------	-----	-----	-----	-----	-----

Parts per million

7.3

Free Carbon Dioxide as CO_2
--------------------------------------	-----	-----	-----

3.0

Ammoniacal Nitrogen as N
--------------------------	-----	-----	-----

0.160

Albuminoid Nitrogen as N
--------------------------	-----	-----	-----

0.032

Nitrous Nitrogen as N
-----------------------	-----	-----	-----

none

Nitric Nitrogen as N
----------------------	-----	-----	-----

0.59

Poisonous Metals (lead etc)
-----------------------------	-----	-----	-----

none

Hardness (Calculated from Mineral Analysis as CaCO_3)
---	-----	-----	-----

260.0

Temporary
-----------	-----	-----	-----

260.0

Permanent
-----------	-----	-----	-----

nil

Permanganate Figure (4 hours at 80°F as 0)
--	-----	-----	-----

0.37

Alkalinity as CaCO_3
-------------------------------	-----	-----	-----

425.3

Mineral Analysis

Silica
--------	-----	-----	-----	-----	-----

6.00

Alumina
---------	-----	-----	-----	-----	-----

none

Iron as Fe_2O_3
---------------------------------	-----	-----	-----	-----	-----

0.37

Calcium as Ca^{2+}
-----------------------------	-----	-----	-----	-----	-----

48.50

Magnesium as Mg.
------------------	-----	-----	-----	-----	-----

33.74

Sodium as Na
--------------	-----	-----	-----	-----	-----

214.68

Carbonates as CO_3
-----------------------------	-----	-----	-----	-----	-----

255.00

Chlorides as Cl
-----------------	-----	-----	-----	-----	-----

49.00

Nitrates as NO_3
---------------------------	-----	-----	-----	-----	-----

2.61

Sulphates as SO_4
----------------------------	-----	-----	-----	-----	-----

221.22

Fluorine as F (by the distillation method)
--	-----	-----	-----	-----	-----

0.77

Manganese as Mn
-----------------	-----	-----	-----	-----	-----

none

Probable composition of Mineral constituents:-

Silica
--------	-----	-----	-----	-----	-----

6.00

Iron Oxide
------------	-----	-----	-----	-----	-----

0.37

Magnesium Carbonate
---------------------	-----	-----	-----	-----	-----

116.99

Sodium Carbonate
------------------	-----	-----	-----	-----	-----

175.11

Sodium Sulphate
-----------------	-----	-----	-----	-----	-----

327.16

Calcium Carbonate
-------------------	-----	-----	-----	-----	-----

121.13

Sodium Chloride
-----------------	-----	-----	-----	-----	-----

80.78

Sodium Nitrate
----------------	-----	-----	-----	-----	-----

3.58

831.12

AIR POLLUTION MEASUREMENTS

1. Sites in the vicinity of Kirton Lindsey Cement Works.

Deposit Gauge Readings.

Total Solids - Tons/sq.mile/month

MONTH	NEWLANDS FARM	KIRTON SUB STATION	GAINSTHORPE SEWAGE WORKS	GAINSTHORPE FARM	HUNTCLIFFE S.M. SCHOOL	* RAINFALL (ins)
January	52.99	14.34	30.37	22.52	12.45	1.30
February	47.66	9.37	28.85	11.82	7.68	3.66
March	11.06	6.03	29.41	38.15	9.40	0.67
April	10.90	10.73	21.10	24.17	13.38	2.17
May	46.30	9.21	47.62	33.91	21.19	1.50
June	-	18.51	80.98	62.17	12.71	2.36
July	5.50	10.20	64.22	84.79	27.27	3.90
August	9.90	70.68	41.20	20.33	10.20	2.96
September	8.25	13.28	50.58	49.25	10.50	1.97
October	15.20	21.23	29.31	40.01	13.11	2.32
November	42.95	15.40	41.43	39.15	15.67	1.36
December	-	6.49	36.43	30.27	11.99	1.06
Average	25.07	17.21	41.79	38.04	13.77	2.10

* Gainsthorpe Farm.

Greased Plate readings

Tons/sq.mile/month

MONTH	NEWLANDS FARM	KIRTON SUB STATION	GAINSTHORPE SEWAGE WORKS	GAINSTHORPE FARM	HUNTCLIFFE S.M. SCHOOL	HIBALDSTOW	MANTON	REDBOURNE	* RAINFALL (ins)
Jan.	60.4	15.2	75.7	18.6	16.0	6.2	10.4	5.6	1.30
Feb.	17.5	9.0	114.3	49.0	5.0	9.0	4.0	3.5	3.66
Mar.	14.8	8.6	226.5	112.1	12.2	29.9	5.7	35.2	0.67
April	42.8	23.4	107.5	45.1	15.8	8.9	6.5	6.3	2.17
May	34.6	10.6	148.5	100.8	12.8	27.1	9.0	19.9	1.50
June	18.7	13.8	135.7	119.3	10.6	16.9	9.5	10.7	2.36
July	13.80	5.8	74.4	272.7	18.2	6.0	5.6	14.0	3.90
Aug.	30.7	12.0	52.7	172.7	7.8	31.1	6.5	17.6	2.96
Sept,	13.6	8.5	105.7	87.7	7.5	17.4	10.9	9.0	1.97
Oct.	40.4	2.8	70.7	63.0	7.9	14.0	13.3	9.7	2.32
Nov.	16.2	10.4	98.2	82.1	18.5	14.4	14.6	4.9	1.36
Dec.	83.4	6.1	83.2	171.5	7.8	29.0	4.0	39.0	1.06
Average	32.2	10.5	107.8	107.9	11.7	17.5	8.3	14.6	2.10

* Gainsthorpe Farm.

2. Sites in the vicinity of the South Ferriby Cement Works.

Greased Plate Readings.

Tons/sq.mile/month.

MONTH	SIMONS FARM WINTERINGHAM	SOUTH FERRIBY SLUICE	SOUTH END SOUTH FERRIBY
January	30.9	7.9	5.4
February	8.4	27.6	111.3
March	7.0	75.2	20.1
April	21.0	32.2	8.7
May	11.3	80.3	22.3
June	16.4	72.7	19.1
July	8.5	92.2	17.5
August	21.0	118.0	18.5
September	11.2	46.7	17.3
October	15.5	31.8	12.8
November	6.1	23.4	20.7
December	3.0	58.8	62.0
Average	13.4	55.6	27.9

FOOD AND DRUGS ACT, 1955

Samples of Food taken by the County Health
Inspector for Chemical Analysis.

<u>Commodity</u>	<u>No. of Samples analysed</u>
Milk	97
Edible fats and oils	2
Tinned, bottled, dried products	6
Non alcoholic beverages	2
Sugar, flour, confectionery	5
Meat and fish products	12
Medicines and Drugs	4
Miscellaneous	7
	<hr/>
	<u>135</u>

Extraneous matter in food.

Milk bottle improperly cleansed - warning to dairy.

Biscuit with fine hair embedded in it - warning to manufacturer.

<u>Milk Special Designation Regulations.</u>	<u>Nos. of samples.</u>
Pasteurised	285
Sterilised	58
Nos. of samples failing methylene Blue Test (Warnings were issued concerning the samples which failed the Methylene Blue Test and future samples proved satisfactory).	2
Nos. of samples for biological examination	22
Nos. of samples positive for Brucella Abortus (The milk concerned is subject to pasteurisation. The Divisional Veterinary Officer has advised on the eradication of the disease from herds and the situation is being kept under observation).	7

ANNUAL REPORT OF THE CHIEF PUBLIC HEALTH INSPECTOR1966.HOUSING

Total number of dwelling houses and flats in the district	...	13,400
Total number of houses erected during the year:-		(approx.)
By the local authority	...	213
By other local authorities	...	Nil
By other bodies or persons	...	430
Number allocated for replacing houses subject to demolition orders or otherwise demolished	... ..	64
Housing Repairs and Rent Acts, 1954 - 57		
Number of certificates of disrepair issued	... ..	Nil
Inspection of Dwelling Houses during the year.		
Total number of dwelling houses inspected for housing defects (Under Public Health or Housing Acts)	... ..	402
Number of inspections made for the purpose	... ..	793
Remedy of defects during the year without service of formal notices		
Number of defective dwelling houses rendered fit in consequence of informal action by the local authority or their officers	... ..	22
Action under Statutory Powers during the year.		
Proceedings under the Public Health Act:		
Number of dwelling houses in respect of which notices were served requiring defects to be remedied	... ..	2
Number of dwellings in which defects were remedied after service of formal notices		
By owners	... ..	2
Proceedings under the Housing Acts:		
Number of dwelling houses in respect of which notices were served requiring repairs	... ..	Nil
Number of dwelling houses which were rendered fit after service of formal notices	... ..
By owners	... ..	Nil
By local authority in default of owners		Nil

Number of unfit houses purchased by local authority in accordance with Housing Acts	Nil
Number of certificates of disrepair issued	Nil
Slum Clearance - Proceedings under the Housing Acts.	
Number of dwelling houses in respect of which demolition orders were made	57
Number of dwelling houses demolished in pursuance of demolition orders	27
Number of dwelling houses, or parts, subject to closing orders	152
Number of dwelling houses, or parts, rendered fit by undertakings	6
Number of dwelling houses included in confirmed clearance orders	Nil
Number of dwelling houses demolished in pursuance thereof ...	Nil
Total number of dwelling houses on which demolition orders are operative and which are still occupied except under the provisions of Sections 34, 35 and 46 of the Housing Act, 1957	4
Total number of dwelling houses occupied under Sections 34, 35 and 46 of the Housing Act, 1957	Nil
Houses demolished or closed voluntarily by owners which would otherwise have been the subject of statutory action to secure demolition or closure	4
Nissen Huts or other similar Hutments:-	
Number still occupied	Nil
Estimated number of dwellings, excluding those under paragraph (4) above remaining to be dealt with under:-	
The Housing Act, 1957, Sections 16 and 18 ...	Nil
The Housing Act, 1957, Section 42	Nil
Housing Acts - Overcrowding	
Number of cases of overcrowding relieved during the year ...	3
Number of persons concerned in such cases	29
Number of dwellings overcrowded at the end of the year ...	Not known
Number of families dwelling therein	Not known
Number of persons dwelling therein	Not known

Housing Acts, 1949 - 59

Number of dwellings for which application for grants
have been received:

A. Standard Grant ...	203
B. Discretionary Grant ...	150

Number of dwellings subject to grant:

A. Standard Grant ...	203
B. Discretionary Grant ...	150

Number of houses owned by local authority which
have been the subject of grant aid
by the Ministry Nil

Moveable Dwellings, Tents, Vans, etc

Caravan Sites and Control of Development Act, 1960

Number of site licences	32
Total number of caravans permitted under such licences ;..	480
Number of inspections during the year:	
Sites	28
Caravans	120
Number of contraventions remedied	7
Number of sites exempt from licence	20
Number of caravans thereon	20

FOOD PREMISES

Bakehouses

Number in district	4
Number of inspections	10
Number of contraventions	Nil
Number of defects remedied	Nil

Ice-Cream

Number of Manufacturers on register	1
Number of premises licensed for the sale of ice-cream	116
Number of inspections of premises made	43
Number of contraventions found	Nil
Number of samples taken:	
Grade 1	20
Grade 2	2
Grade 3	1

Meat Products

Number of premises registered for the manufacture of meat products	...	...	...	...	...	...	28
Number of inspections of premises made	...	...	...	...	...	...	149
Number of contraventions found	...	...	...	...	...	...	3
Number of contraventions remedied	...	...	...	...	...	...	3

Other Food Premises

Number of other food premises (i.e. excluding bakehouses, and premises registered for the manufacture of ice-cream and meat products	...	...	...	...	...	156
Number of inspections made	...	...	...	...	...	570
Number of contraventions found	...	...	...	...	...	37
Number of contraventions remedied	...	...	...	...	...	35

Slaughterhouses**Number licenced:**

Abattoir type	...	...	...	1
Private (individual)	...	...	...	4
Number operated by local authority	...	...	...	Nil

UN SOUND FOODCARCASES AND OFFAL INSPECTED AND CONDEMNED IN WHOLE
OR IN PART.

	Cattle excluding Cows	Cows	Calves	Sheep & Lambs	Pigs	Horses
Number killed	2,202	45	7	3,165	3,302	0
Number inspected	2,202	45	7	3,165	3,302	-
All diseases except tuber- culosis and cysticeri						
Whole carcasses condemned	-	-	-	-	-	-
Carcasses of which some part or organ was con- demned	527	-	-	2	283	-
Percentage of the number inspected affected with disease other than tuber- culosis and cysticeri	23.9	-	-	.06	8.6	-
Tuberculosis only						
Whole carcasses condemned	-	-	-	-	-	-
Carcasses of which some part or organ was con- demned	-	-	-	-	26	-
Percentage of the number inspected affected with tuberculosis	-	-	-	-	.8	-
Cysticercosis						
Carcasses of which some part or organ was con- demned	7	-	-	-	-	-
Carcasses submitted to treatment by refrigeration	7	-	-	-	-	-
Generalised and totally condemned	-	-	-	-	-	-

OTHER FOODS CONDEMNED: 28 lbs tinned luncheon meat.

DRAINAGE AND SEWERAGE**Closets**

Number of houses with privy vaults in district	...	...	...	8
Number of houses with pail closets in district	...	...	...	821
Number of houses with water-closets in district	...	...	...	12,579
Number of water closets substituted for pail closets and privy vaults	...	...	...	103
The council operates a pail closet emptying service.				

Cesspools and Septic Tanks

Number of cesspools and septic tanks emptied, cleansed, etc	...	495
Number of cesspools and septic tanks abolished	...	152
The council operates a cesspool/septic tank emptying service - one part-time vehicle being used.		

Sewerage and Sewage Disposal

Details of areas or villages where provision has been made of new sewers or where existing sewerage arrangements improved

Ulceby, Wootton and Thornton Curtis Scheme completed.
 Alkborough scheme completed.
 Ferry Road West Scheme completed.
 Winteringham, Roxby, Killingholme and East Halton in progress.

Details of areas or villages where provision has been made of new sewage disposal facilities or existing arrangements improved:

Alkborough works completed.
 Ulceby, Wootton and Thornton works completed.
 Winteringham, Roxby, Killingholme and East Halton in progress.

Any part of the district urgently requiring public sewers and/or treatment works for public health reasons:

Burringham, East Butterwick, South Ferriby, Horkstow,
 Saxby, Bonby, Worlaby, Elsham, Redbourne, Appleby,
 Flixborough, Cadney, West Halton.

GENERAL

Offensive Trades

Number of premises in the district	...	...	...	...	...	1
Number of inspections made	...	...	...	...	...	7
Number of contraventions remedied	...	...	...	...	...	Nil

Knackers Yards

Number licenced	...	...	...	...	...	1
Number of inspections made	...	...	...	...	...	8
Number of contraventions remedied	...	...	...	...	...	Nil

Offices, Shops and Railway Premises Act, 1963

Number of premises registered	...	...	...	...	...	150
Number of inspections made	...	...	...	...	...	61
Number of defects	...	...	...	...	...	19
Number of defects remedied	...	...	...	...	...	21

Disinfection and Disinfestation

Rooms or premises disinfected	...	...	...	...	...	Nil
Number of premises subject to disinfestation	...	...	...	...	...	3

Refuse collection and disposal

Number of premises from which refuse is collected	...	...	...	...	98%
Frequency of collection	...	...	...	...	Fortnightly or under
Type of receptacle - Mainly bins - one sack area in operation and another proposed..					
Method of disposal - Part controlled tipping.					
Number of tips	...	...	...	...	7
Number of refuse collection vehicles	...	...	...	...	7

Nuisances

Details of nuisance abated

Nuisance	After informal intimation	After Statutory notice
Refuse	10	-
Foul ditches, ponds & stagnant water	19	-
Drainage	59	-
Poultry and animals	13	-
Dangerous Premises	12	5
Miscellaneous Nuisances	12	-
TOTAL	125	5

Rodent Control

Number of rodent operatives employed	...	...	...	...	1
Number of premises treated:					
Dwelling houses	...	...	...	...	850
Other premises	...	...	...	...	16

There are no serious reservoirs of rats in the district

The service covers domestic, business and agricultural premises

Atmospheric Pollution

Number of visits	...	...	...	...	...	...	...	185
Number of nuisances found	...	...	...	...	...	...	...	2
Number of nuisances abated	...	...	...	...	...	...	...	2

Smokeless Zones

Number of smokeless zones in operation	...	...	...	...	3
Number of proposed smokeless zones under consideration	...	...	...	...	1
Total number of houses in smokeless zones	...	...	...	...	2,008

PORT HEALTH

Number of ships (other than barges and coasters not trading outside the U.K.) using the port of Killingholme	...	...	...	...	19
Number of such ships inspected	...	...	...	...	19
Number arriving from ports other than "excepted parts" ..	...	...	...	...	2
Number having come from an "infected part"	...	...	...	...	1
Number having current "de-ratting" or exemption certificate	...	...	...	...	19

The port of Killingholme is purely concerned with oil and oil products. No immigration, inspection of aliens or commonwealth immigrants and no inspection of foodstuffs is involved.

FACTORIES ACT, 1961Part 1 of the Act.

1. Inspections for purposes of provisions as to health.

PREMISES	Number on Register	Number of		
		Inspections	Written Notices	Occupiers Prosecuted
Factories in which Sections 1,2,3,4, and 6 are to be enforced by the local authority	7	21	-	-
Factories not included in above in which Section 7 is enforced by the Local Authority	78	86	-	-
Other premises in which Section 7 is enforced by the local authority (excluding out-workers premises).	10	9	-	-
TOTAL	95	116	-	-

2. Cases in which defects were found - NIL

Part V111 of the Act

3. Details of Outwork (Sections 133 and 134) carried on in the district

Number of workers in August list required by Section 133 (1) (c)	...	...	1
Nature of work: Making etc. Cleaning and Washing Wearing Apparel			
Number of cases default in sending lists to the Council	...	...	Nil
Number of prosecutions for failure to supply lists	...	...	Nil
Number of instances of work in unwholesome premises	...	...	Nil

